

## Description

IDT's R11CL is a broadcast quality MPEG-4 AVC/H.264 encoder that is optimized for live video streaming, as well as faster-than-real-time video file transcoding on general purpose x86 CPUs. Leveraging decades of video compression expertise and market proven technology from the professional and broadcast market, IDT's R11CL provides the highest quality video solution at the highest density for the cloud video market.

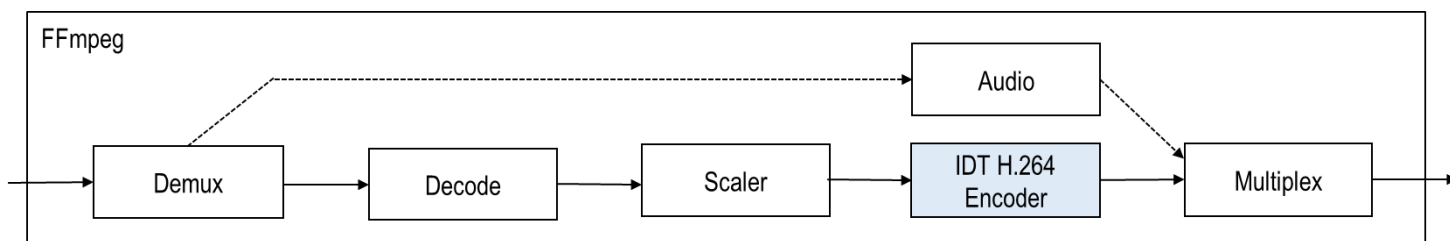
## Typical Applications

- Cloud video services
- Adaptive bit rate streaming
- High density video transcoding

## Features

- H.264/MPEG-4 Encoder optimized for live video streaming and file transcoding for the cloud video market
- IDR aligned multiple resolution outputs ready for OTT packaging
- Dense encoder solution for general purpose x86 CPUs
- Docker and VM support for use in private and public cloud environments
- Unique Computational Control System for highly efficient content adaptive encoding to maximize channel density and video quality
- Seamless integration into existing cloud workflows with FFmpeg framework plug-in support
- Live and File Input/Output
- H.264 profiles: high, main, baseline
- Dynamic adaptive GOP structure with up to 7 B frames
- Large hierarchical motion estimation
- Exhaustive professional mode search
- Programmable latency for tradeoff between video delay and quality
- User set intra refresh rate
- Scene change and fade detection
- Skin tone detection
- Adaptive quantization

## Block Diagram





## IMPORTANT NOTICE AND DISCLAIMER

RENESAS ELECTRONICS CORPORATION AND ITS SUBSIDIARIES (“RENESAS”) PROVIDES TECHNICAL SPECIFICATIONS AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT OF THIRD-PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for developers who are designing with Renesas products. You are solely responsible for (1) selecting the appropriate products for your application, (2) designing, validating, and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. Renesas grants you permission to use these resources only to develop an application that uses Renesas products. Other reproduction or use of these resources is strictly prohibited. No license is granted to any other Renesas intellectual property or to any third-party intellectual property. Renesas disclaims responsibility for, and you will fully indemnify Renesas and its representatives against, any claims, damages, costs, losses, or liabilities arising from your use of these resources. Renesas' products are provided only subject to Renesas' Terms and Conditions of Sale or other applicable terms agreed to in writing. No use of any Renesas resources expands or otherwise alters any applicable warranties or warranty disclaimers for these products.

(Disclaimer Rev.1.01 Jan 2024)

### Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,  
Koto-ku, Tokyo 135-0061, Japan  
[www.renesas.com](http://www.renesas.com)

### Trademarks

Renesas and the Renesas logo are trademarks of Renesas Electronics Corporation. All trademarks and registered trademarks are the property of their respective owners.

### Contact Information

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit [www.renesas.com/contact-us/](http://www.renesas.com/contact-us/).